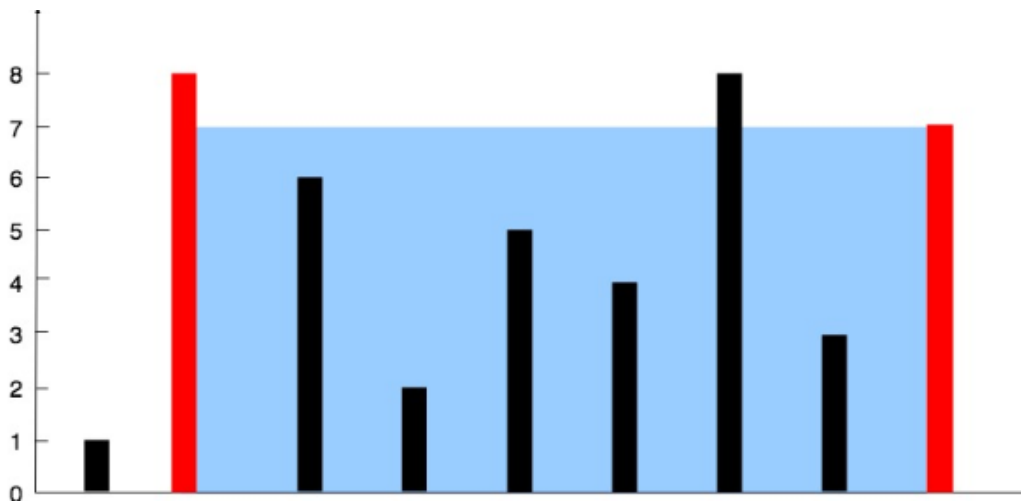


### Challenge 1:

#### Walls of tears

Imagine you are an unemployed engineer who needs to build the wall. The distance between each wall is 1 unit, unfortunately due to your lack knowledge you cannot build the height equally. After you built the wall, they asked you if it rained how much the maximum water that the wall can store. [choose only 2 wall and look for area between]



You can see that the maximum area of water is  $7 \times 7$  between wall 2 and wall 9.

Ref: <https://leetcode.com/problems/container-with-most-water/>

Input	Output
9 //array size 1 8 6 2 5 4 8 3 7 //height of the wall	49
2 1 1	1
10 1 9 8 5 2 3 5 1 2 4	32

## Challenge 2:

The torment matrix

You will input the size of matrix then you need to scale the data in matrix between 0 and 1 then sort it ascending order [the upper should lower than the lower, the left data should less than the right]

Ref. <https://www.borntodev.com/devlab/task/225>

Input	Output
2 6 //size -4605.16      4768.87 -494.21        6548.12 9198.68        -5335.41 -7206.89       -9559.76 -731.66        2229.36 -8204.81       1053.96	 0.0000      0.1254 0.2252      0.2641 0.4706      0.4833 0.5658      0.6285 0.0722      0.7638 0.8587      1.0000
3 3 3604.51      436.83      -7432.11 -2502.26      7696.38      -3048.74 4404.94      -6315.65      3525.76	 0.0000      0.0738      0.2897 0.3259      0.5201      0.7243 0.7295      0.7824      1.0000
2 2 1      50 75      100.1	 0.0000      0.4945 0.7467      1.0000

Challenge 3:

If it Easy it not Roman

Create a program to convert integer to roman number

### Roman Numeral Symbols

<b>I</b>	1		
<b>V</b>	5	<b><math>\bar{V}</math></b>	5,000
<b>X</b>	10	<b><math>\bar{X}</math></b>	10,000
<b>L</b>	50	<b><math>\bar{L}</math></b>	50,000
<b>C</b>	100	<b><math>\bar{C}</math></b>	100,000
<b>D</b>	500	<b><math>\bar{D}</math></b>	500,000
<b>M</b>	1,000	<b><math>\bar{M}</math></b>	1,000,000

Learn more about [Roman Numerals](#)

Ref. <https://stackoverflow.com/>

roman character cannot be stack up to 4.

Ex number 4 roman is IV instead of IIII, 900 is DM instead of DCCCC.

\*The input data in this Question will include only 1 to 3999 inclusively.

Input	Output
123	CXXIII
3333	MMMCCCXXXIII
3999	MMMCMXCIX
1	I
69	LXIX
555	DLV
984	CMLXXXIV
8	VIII